INDEX TO AUTHORS

A

Abeles, Robert H. See *Mackenzie and Abeles*, 145

Alonso-deFlorida, Francisco. See *Frieden, Noall, and Alonso-deFlorida*, 611

Anderson, David G. See *Cantoni and Anderson*, 171

Avi-Dor, Y., and Mager, J. A spectrophotometric method for determination of cysteine and related compounds, 249

B

Barban, Stanley, and Schulze, Henry O. Metabolism of tissue culture cells. The presence in HeLa cells of the enzymes of the citric acid cycle, 665

Barnum, Cyrus P. See *Jardetzky, Barnum, and Vermund*, 421

Bascom, Willard D. See *Rosenfeld and Bascom*, 565

Benjamin, George S. See *Fishman, Benjamin, and Green*, 351

Berg, Clarence P. See *Cohen and Berg*, 85

Berg, Paul. Acyl adenylates: an enzymatic mechanism of acetate activation, 991

—. Acyl adenylates: the interaction of adenosine triphosphate and L-methionine, 1025

—. Acyl adenylates: the synthesis and properties of adenyl acetate, 1015

Blomstrand, Rolf. See *Hanahan and Blomstrand*, 677

Bloom, Ben, Eisenberg, Frank, Jr., and Stetten, DeWitt, Jr. Occurrence of non-Embden-Meyerhof pathways in the intact rat, 301

Brady, Roscoe O., Mamoon, Abdel-Megid, and Stadtman, E. R. The effects of citrate and coenzyme A on fatty acid metabolism, 795

Brink, Norman G. See *Lewis, Williams, and Brink*, 705

Brown, G. W., Jr. See *Lossow, Brown, and Chaikoff*, 531

Brown, Paul K., and Wald, George. The neo-b isomer of vitamin A and retinene, 865

Brown, R. R. See *Price and Brown*, 835

Bucher, Nancy L. R., and McGarrahan, Kathleen. The biosynthesis of cholesterol from acetate-1-C^{14} by cellular fractions of rat liver, 1

Burtle, Jerome G. See *Gutmann, Peters, and Burtle*, 373

C

Cahill, George, Jr. See *Shull, Cahill, Gadsden, and Mayer*, 415

Canellakis, Z. N., and Cohen, Philip P. Kinetic and substrate specificity study of tyrosine-α-ketoglutaric acid transaminase, 63

— and —. Purification studies of tyrosine-α-ketoglutaric acid transaminase, 53

Cantoni, G. L., and Anderson, David G. Enzymatic cleavage of dimethylpropiothetin by *Polysiphonia lanosa*, 171

Carter, Charles E., and Cohen, Leonard H. The preparation and properties of adenylosuccinase and adenylosuccinic acid, 17

Castillo, Arthur. See *Farber and Sidransky*, 237

Chaikoff, I. L. See *Chapman, Chaikoff, and Dauben*, 363

—. See *Lossow, Brown, and Chaikoff*, 531

Chang, Mei-Ling W. See *Lowry, Roberts, and Chang*, 97

Chapman, D. D., Chaikoff, I. L., and Dauben, W. G. Acetoacetate formation in liver. IV. Studies with pentadecanoin-1-C^{14}, -5-C^{14}, and -14-C^{14}, 363

Chervenka, Charles H., and Wilcox,

XUM

Philip E. Chemical derivatives of chymotrypsinogen. I. Reaction with carbon disulfide, 621
— and —. II. Reaction with *O*-methylisourea, 635
Clark, Irwin, and **Stoerk, Herbert C.** The uptake of P^{32} by nucleic acids of lymphoid tissue undergoing atrophy, 285
Cohen, Harold P., and **Berg, Clarence P.** Erythrocyte turnover in rats fed diets high in methionine, 85
Cohen, Leonard H. See *Carter and Cohen,* 17
Cohen, Philip P. See *Canellakis and Cohen,* 53, 63
Cooper, Cecil. See *Tapley and Cooper,* 341
Corey, Harold. See *Saifer and Corey,* 803

D

Dauben, W. G. See *Chapman, Chaikoff, and Dauben,* 363
Davidson, Warren D. See *Mokrasch, Davidson, and McGilvery,* 179
Davis, Bernard D. See *Gilvarg and Davis,* 307
Davis, John W. See *Wotiz, Davis, Lemon, and Gut,* 487
Day, Paul L. See *Dinning, Sime, and Day,* 215
De Luca, Hector F., and **Steenbock, Harry.** Vitamin D and plasma phosphatase in the rat, 937
Deutsch, H. F., Morton, Jane I., and **Kratochvil, C. H.** Antigenic identity of hyperglobulinemic serum components with proteins of normal serum, 39
—. See *Kratochvil and Deutsch,* 31
Dinning, James S., Sime, John T., and **Day, Paul L.** An increased incorporation of P^{32} into nucleic acids by vitamin E-deficient rabbits, 215
Doctor, V. M. *In vitro* studies on the conversion of folic acid to citrovorum factor, 959
Donnelly, Thomas H. See *Laskowski, Donnelly, Van Tijn, and Scheraga,* 815
Douglas, G. W., and **Mortensen, R. A.** The rate of metabolism of brain and liver glutathione in the rat studied with C^{14}-glycine, 581

E

Eichel, Herbert J. Respiratory enzyme studies in *Tetrahymena pyriformis.* II. Reduced diphosphopyridine nucleotide oxidase and reduced diphosphopyridine nucleotide cytochrome *c* reductase, 121
—. III. Some properties of reduced diphosphopyridine nucleotide oxidase of cell-free homogenates, 137
Eisenberg, Frank, Jr., and **Field, James B.** The enzymatic hydrolysis of glucuronolactone, 293
—. See *Bloom, Eisenberg, and Stetten,* 301
Engelberg, Hyman. Human endogenous lipemia clearing activity. Studies of lipolysis and effects of inhibitors, 601

F

Farber, Emmanuel, and **Sidransky, Herschel.** Changes in protein metabolism in the rat pancreas on stimulation, 237
Fiedler, Hildegard, and **Wood, John L.** Specificity studies on the β-mercaptopyruvate-cyanide transsulfuration system, 387
Field, James B. See *Eisenberg and Field,* 293
Fishman, William H., Benjamin, George S., and **Green, Sidney.** A biochemical effect of gonadotropin: renal β-glucuronidase stimulation, 351
Fredrickson, Donald S. The conversion of cholesterol-4-C^{14} to acids and other products by liver mitochondria, 109
French, Dexter. See *Summer and French,* 469
Frenkel, Albert W. Photophosphorylation of adenine nucleotides by cell-free preparations of purple bacteria, 823
Frieden, Edward H., Noall, Matthew W., and **Alonso-deFlorida, Francisco.** Non-steroid ovarian hormones. Frac-

tionation of relaxin-containing extracts on oxidized cellulose and Dowex 50, 611

G

Gadsden, Evelyn L. See *Shull, Cahill, Gadsden, and Mayer*, 415

Gallagher, T. F. See *Rosenfeld, Hellman, and Gallagher*, 321

Gilvarg, Charles, and **Davis, Bernard D.** The rôle of the tricarboxylic acid cycle in acetate oxidation in *Escherichia coli*, 307

Glick, David. See *Nayyar and Glick*, 73

Goldthwait, David A. 5-Phosphoribosylamine, a precursor of glycinamide ribotide, 1051

Green, Sidney. See *Fishman, Benjamin, and Green*, 351

Greenberg, David M. See *Rabinovitz, Olson, and Greenberg*, 879

Gut, Marcel. See *Wotiz, Davis, Lemon, and Gut*, 487

Gutmann, Helmut R., Peters, John H., and **Burtle, Jerome G.** The metabolism *in vitro* of fluorene derivatives by rat liver: hydroxylation and protein binding, 373

H

Hanahan, Donald J., and **Blomstrand, Rolf.** Observations on the incorporation *in vivo* of palmitic acid-1-C^{14} and oleic acid-1-C^{14} into lecithins, 677

Hankes, L. V. See *Henderson and Hankes*, 1069

Hayaishi, Osamu. See *Jakoby, Ohmura, and Hayaishi*, 435

Heck, Walter W. See *Wolf, Wu, and Heck*, 159

Hehre, Edward J. Natural synthesis of low molecular weight (clinical type) dextran by a streptococcus strain, 739

Hellman, Leon. See *Rosenfeld, Hellman, and Gallagher*, 321

Hellman, Nison N. See *Hehre*, 739

Henderson, L. M., and **Hankes, L. V.** The metabolism of DL-tryptophan-3a,7a,7-C^{14} and DL-tryptophan-α-C^{14} in the rat, 1069

Heppel, Leon A. See *Kaplan and Heppel*, 907

Herbert, Edward, and **Potter, Van R.** Nucleotide metabolism. VI. The phosphorylation of 5′-cytosine and guanine nucleotides by cell fractions from rat liver, 453

Herriott, Roger M. See *Johnson and Herriott*, 855

Hess, J. See *Van Pilsum, Martin, Kito, and Hess*, 225

Hogeboom, George H. See *Schneider, Striebich, and Hogeboom*, 969

Huffman, Max N., Lott, Mary Harriet, and **Tillotson, Albert.** 16-Substituted steroids. XVII. 5-Androstene-3β,16β-diol and 5-androstene-3β,16α-diol, 447

J

Jakoby, William B., Ohmura, E., and **Hayaishi, Osamu.** Enzymatic decarboxylation of oxalic acid, 435

Jang, Rosie. See *Loewus, Jang, and Seegmiller*, 649

Jardetzky, Christine D., Barnum, Cyrus P., and **Vermund, Halvor.** Deoxyribonucleic acid and phospholipide metabolism in regenerating liver and the effect of x-radiation, 421

Johnson, Alonza C., and **Herriott, Roger M.** Peptide cofactors in enzymatic proteolysis: their structural features and presence in proteins, 855

K

Kaplan, Henry S., and **Heppel, Leon A.** Purification and properties of spleen ribonuclease, 907

Katzen, Howard M. See *Stetten, Katzen, and Stetten*, 587

Keller, Daniel M. See *Lotspeich and Keller*, 843

Kelley, M. B. See *Roberts and Kelley*, 555

Kennedy, Eugene P. The synthesis of cytidine diphosphate choline, cytidine

diphosphate ethanolamine, and related compounds, 185
— and **Weiss, Samuel B.** The function of cytidine coenzymes in the biosynthesis of phospholipides, 193
Kito, E. See *Van Pilsum, Martin, Kito, and Hess*, 225
Kitzinger, C. See *Steiner and Kitzinger*, 271
Kline, Dorothy, McPherson, Catherine, Pritchard, E. T., and **Rossiter, R. J.** Effect of food deprivation on the labeling of phospholipide in rat liver slices, 219
Kratochvil, C. H., and **Deutsch, H. F.** A crystalline macroglobulin from human serum, 31
—. See *Deutsch, Morton, and Kratochvil*, 39

L

Laskowski, Michael, Jr., Donnelly, Thomas H., Van Tijn, Barbara A., and **Scheraga, Harold A.** The proteolytic action of thrombin on fibrinogen, 815
Lehman, I. R., and **Nason, Alvin.** The rôle of lipides in electron transport. I. Properties of a diphosphopyridine nucleotide-cytochrome *c* reductase from rat skeletal muscle, 497
—. See *Nason and Lehman*, 511
Lemon, Henry M. See *Wotiz, Davis, Lemon, and Gut*, 487
Levitz, Mortimer, and **Spitzer, Jean R.** The synthesis of 16-ketoestradiol-17β-16-C^{14}, 979
—, —, and **Twombly, Gray H.** The conversion of estradiol-17β-16-C^{14} to radioactive 16-ketoestradiol-17β in man, 981
Levy, H. Richard, Loewus, Frank A., and **Vennesland, Birgit.** The enzymatic transfer of hydrogen. V. The reaction catalyzed by glucose dehydrogenase, 685
Lewbart, Marvin L. See *Schneider and Lewbart*, 787
Lewis, Urban J., Williams, Donald E., and **Brink, Norman G.** Pancreatic elastase: purification, properties, and function, 706
Lieberman, Irving. Enzymatic amination of uridine triphosphate to cytidine triphosphate, 765
Liener, Irvin E., and **Wada, Shohachi.** Chemical modification of the soy bean hemagglutinin, 696
Loewus, Frank A., Jang, Rosie, and **Seegmiller, C. G.** The conversion of C^{14}-labeled sugars to L-ascorbic acid in ripening strawberries, 649
—. See *Levy, Loewus, and Vennesland*, 685
Lossow, W. J., Brown, G. W., Jr., and **Chaikoff, I. L.** Sparing of palmitic acid oxidation by carbohydrate: prefeeding *versus* addition to medium, 531
Lotspeich, William D., and **Keller, Daniel M.** A study of some effects of phlorizin on the metabolism of kidney tissue *in vitro*, 843
Lott, Mary Harriet. See *Huffman, Lott, and Tillotson*, 447
Lowry, Oliver H., Roberts, Nira R., and **Chang, Mei-Ling W.** The analysis of single cells, 97

M

Mackenzie, Cosmo G., and **Abeles, Robert H.** Production of active formaldehyde in the mitochondrial oxidation of sarcosine-CD$_2$, 145
Mager, J. See *Avi-Dor and Mager*, 249
Mamoon, Abdel-Megid. See *Brady, Mamoon, and Stadtman*, 796
Martin, R. P. See *Van Pilsum, Martin, Kito, and Hess*, 225
Mayer, Jean. See *Shull, Cahill, Gadsden, and Mayer*, 415
McGarrahan, Kathleen. See *Bucher and McGarrahan*, 1
McGilvery, R. W. See *Mokrasch, Davidson, and McGilvery*, 179
McPherson, Catherine. See *Kline, McPherson, Pritchard, and Rossiter*, 219
Melchior, Jacklyn B. See *Ziegler and Melchior*, 721, 731

Mokrasch, Lewis C., Davidson, Warren D., and McGilvery, R. W. The response to glucogenic stress of fructose-1,6-diphosphatase in rabbit liver, 179

Mortensen, R. A. See *Douglas and Mortensen*, 581

Morton, Jane I. See *Deutsch, Morton, and Kratochvil*, 39

N

Najjar, Victor A. See *Sidbury, Rosenberg, and Najjar*, 89

Nakada, Henry I., and Wick, Arne N. The effect of 2-deoxyglucose on the metabolism of glucose, fructose, and galactose by rat diaphragm, 671

Nason, Alvin, and Lehman, I. R. The rôle of lipides in electron transport. II. Lipide cofactor replaceable by tocopherol for the enzymatic reduction of cytochrome *c*, 511

—. See *Lehman and Nason*, 497

Nayyar, Som N., and Glick, David. Effect of alcohols on β-glucuronidase activity, 73

Newton, Georgia. See *Berg*, 991, 1015, 1025

Noall, Matthew W. See *Frieden, Noall, and Alonso-deFlorida*, 611

Nyc, Joseph F. See *Pierce and Nyc*, 777

O

Ohmura, E. See *Jakoby, Ohmura, and Hayaishi*, 435

Olson, Margaret E. See *Rabinovitz, Olson, and Greenberg*, 879

P

Passmann, John M. See *Williamson and Passmann*, 151

Peters, John H. See *Gutmann, Peters, and Burtle*, 373

Pierce, John G., and Nyc, Joseph F. A method for the preparation of high potency concentrates of thyrotropic hormone, 777

Potter, Van R. See *Herbert and Potter*, 453

Price, J. M., and Brown, R. R. Quantitative studies on human urinary metabolites of D-, DL-, acetyl-L-, and acetyl-D-tryptophan, 835

Pricer, W. E., Jr. See *Rabinowitz and Pricer*, 537

Pritchard, E. T. See *Kline, McPherson, Pritchard, and Rossiter*, 219

R

Rabinovitz, M., Olson, Margaret E., and Greenberg, David M. Rôle of glutamine in protein synthesis by the Ehrlich ascites carcinoma, 879

Rabinowitz, Jesse C., and Pricer, W. E., Jr. Purine fermentation by *Clostridium cylindrosporum*. V. Formiminoglycine, 537

Roberts, D. W. A. The wheat leaf phosphatases. II. Pathways of hydrolysis of some nucleotides at pH 5.5, 259

Roberts, Nira R. See *Lowry, Roberts, and Chang*, 97

Roberts, Sidney, and Kelley, M. B. Metabolism of plasma proteins *in vitro*, 555

Rosenberg, Lawson L. See *Sidbury, Rosenberg, and Najjar*, 89

Rosenfeld, George, and Bascom, Willard D. The inhibition of steroidogenesis by amphenone B: studies *in vitro* with the perfused calf adrenal, 565

Rosenfeld, R. S., Hellman, Leon, and Gallagher, T. F. The transformation of cholesterol-3*d* to coprostanol-*d*. Location of deuterium in coprostanol, 321

Rosenthal, E. See *Cantoni and Anderson*, 171

Rossiter, R. J. See *Kline, McPherson, Pritchard, and Rossiter*, 219

S

Saifer, Abraham, and Corey, Harold. Electrophoretic mobility-ionic strength studies of proteins. III. The subfractionation of human γ-globulin (Fraction II), 803

Scheraga, Harold A. See *Laskowski, Donnelly, Van Tijn, and Scheraga*, 815

Schneider, John J., and **Lewbart, Marvin L.** Enzymatic synthesis of steroid sulfates, 787

Schneider, Walter C., Striebich, Mary Jo, and **Hogeboom, George H.** Cytochemical studies. VII. Localization of endogenous citrate in rat liver fractions, 969

Schulze, Henry O. See *Barban and Schulze*, 665

Seegmiller, C. G. See *Loewus, Jang, and Seegmiller*, 649

Senti, Frederic R. See *Hehre*, 739

Shull, Kenneth H., Cahill, George, Jr., Gadsden, Evelyn L., and **Mayer, Jean.** Glucose-6-phosphatase and phosphorylase activities in mice bearing corticotropin-secreting tumors, 415

Sidbury, James B., Jr., Rosenberg, Lawson L., and **Najjar, Victor A.** Muscle glucose-1-phosphate transphosphorylase, 89

Sidransky, Herschel. See *Farber and Sidransky*, 237

Sime, John T. See *Dinning, Sime, and Day*, 215

Spitzer, Jean R. See *Levitz and Spitzer*, 979

—. See *Levitz, Spitzer, and Twombly*, 981

Stadtman, E. R. See *Brady, Mamoon, and Stadtman*, 795

Stahmann, Mark A. See *Tsuyuki, Tsuyuki, and Stahmann*, 479

Steenbock, Harry. See *De Luca and Steenbock*, 937

Steiner, R. F., and **Kitzinger, C.** A calorimetric determination of the heat of an antigen-antibody reaction, 271

Stetten, DeWitt, Jr. See *Bloom, Eisenberg, and Stetten*, 301

—. See *Stetten, Katzen, and Stetten*, 587

Stetten, Marjorie R., Katzen, Howard M., and **Stetten, DeWitt, Jr.** Metabolic inhomogeneity of glycogen as a function of molecular weight, 587

Stoerk, Herbert C. See *Clark and Stoerk*, 285

Striebich, Mary Jo. See *Schneider, Striebich, and Hogeboom*, 969

Summer, Russ, and **French, Dexter.** Action of β-amylase on branched oligosaccharides, 469

T

Tapley, Donald F. The effect of thyroxine and other substances on the swelling of isolated rat liver mitochondria, 325

— and **Cooper, Cecil.** The effect of thyroxine and related compounds on oxidative phosphorylation, 341

Tillotson, Albert. See *Huffman, Lott, and Tillotson*, 447

Tolbert, N. E., and **Zill, L. P.** Excretion of glycolic acid by algae during photosynthesis, 895

Tomizawa, Henry H. See *Tyberghein, Tomizawa, and Williams*, 945

Tsuyuki, Emee, Tsuyuki, H., and **Stahmann, Mark A.** The synthesis and enzymatic hydrolysis of poly-D-lysine, 479

Tsuyuki, H. See *Tsuyuki, Tsuyuki, and Stahmann*, 479

Twombly, Gray H. See *Levitz, Spitzer, and Twombly*, 981

Tyberghein, Jean M., Tomizawa, Henry H., and **Williams, Robert H.** Glycogenolytic action of glucagon as influenced by insulin and other compounds, 945

V

Van Pilsum, John F., Martin, R. P., Kito, E., and **Hess, J.** Determination of creatine, creatinine, arginine, guanidinoacetic acid, guanidine, and methylguanidine in biological fluids, 225

Van Tijn, Barbara A. See *Laskowski, Donnelly, Van Tijn, and Scheraga*, 815

Vennesland, Birgit. See *Levy, Loewus, and Vennesland*, 685

Vermund, Halvor. See *Jardetzky, Barnum, and Vermund*, 421

Vernon, Leo P. Bacterial cytochromes. I. Cytochrome composition of *Micro-*

coccus denitrificans and *Pseudomonas denitrificans*, 1035
—. II. Cytochrome composition of an unidentified pseudomonad capable of reducing nitrate, 1045
du Vigneaud, Vincent. See *Ward and du Vigneaud*, 951

W

Wada, Shohachi. See *Liener and Wada*, 695
Wald, George. See *Brown and Wald*, 865
Ward, Darrell N., and du Vigneaud, Vincent. Studies on the purification of lysine vasopressin from hog pituitary glands, 951
Weinhouse, Sidney. See *Wenner and Weinhouse*, 399
Weiss, Samuel B. See *Kennedy and Weiss*, 193
Wells, Ibert C. Choline antimetabolites. Studies in microorganisms, 923
—. Inhibition of choline synthesis in young rats by 2-amino-2-methylpropanol-1, 931
Wenner, Charles E., and Weinhouse, Sidney. Metabolism of neoplastic tissue. IX. An isotope tracer study of glucose catabolism pathways in normal and neoplastic tissues, 399
Wick, Arne N. See *Nakada and Wick*, 671
Wilcox, Philip E. See *Chervenka and Wilcox*, 621, 635
Williams, Donald E. See *Lewis, Williams, and Brink*, 705
Williams, Robert H. See *Tyberghein, Tomizawa, and Williams*, 945
Williamson, Martin B., and Passmann, John M. The amino acid sequence at the *N* terminus of pepsin, 151
Wilson, T. Hastings. The rôle of lactic acid production in glucose absorption from the intestine, 751
Wolf, George, Wu, Pei-Hsing Lin, and Heck, Walter W. The metabolism of α-C^{14}-histidine in the intact rat. II. Radioactive excretion products in urine, 159
Wood, John L. See *Fiedler and Wood*, 387
Woronkow, S. See *Lotspeich and Keller*, 843
Wotiz, Herbert H., Davis, John W., Lemon, Henry M., and Gut, Marcel. Studies in steroid metabolism. V. The conversion of testosterone-4-C^{14} to estrogens by human ovarian tissue, 487
Wu, Pei-Hsing Lin. See *Wolf, Wu, and Heck*, 159

Z

Ziegler, Daniel M., and Melchior, Jacklyn B. Fractionation of pituitary homogenates by differential centrifugation. I. Association of hormonal activity with subcellular fractions, 721
— and —. II. Distribution of the amino acid-incorporating system, 731
Zill, L. P. See *Tolbert and Zill*, 895

INDEX TO SUBJECTS

A

Acetate: Aceto-. *See* Acetoacetate
Activation, enzymatic mechanism, *Berg*, 991
Adenyl. *See* Adenyl acetate
Carbon 14-labeled, cholesterol biosynthesis, liver, relation, *Bucher and McGarrahan*, 1
Oxidation, *Escherichia coli*, tricarboxylic acid cycle relation, *Gilvarg and Davis*, 307
Acetic acid: Guanidino-. *See* Guanidinoacetic acid
Acetoacetate: Formation, liver, pentadecanoin, carbon 14-labeled, relation, *Chapman, Chaikoff, and Dauben*, 363
Acid(s): Cholesterol-4-C^{14} conversion to, liver mitochondria, relation, *Fredrickson*, 109
Acyl adenylate(s): *Berg*, 991, 1015, 1025
Adenine nucleotide(s): Photophosphorylation, bacteria, purple, *Frenkel*, 823
Adenosine triphosphate: L-Methionine and, interaction, *Berg*, 1025
Adenyl acetate: Synthesis and properties, *Berg*, 1025
Adenylate: Acyl. *See* Acyl adenylate
Adenylosuccinase: Preparation and properties, *Carter and Cohen*, 17
Adenylosuccinic acid: Preparation and properties, *Carter and Cohen*, 17
Adrenal(s): Steroidogenesis, use in study, *Rosenfeld and Bascom*, 565
Agglutinin: Hem-. *See* Hemagglutinin
Alcohol(s): β-Glucuronidase, effect, *Nayyar and Glick*, 73
Alga: Glycolic acid excretion, photosynthesis effect, *Tolbert and Zill*, 895
Amine: 5-Phosphoribosyl-. *See* Phosphoribosylamine
Amino acid(s): -Incorporating system, pituitary homogenates, *Ziegler and Melchior*, 731
Pepsin, *Williamson and Passmann*, 151
Amino-2-methylpropanol-1: 2-, choline synthesis, effect, *Wells*, 923
Amphenone B: Steroidogenesis, effect, *Rosenfeld and Bascom*, 565
Amylase: β-, oligosaccharides, branched, effect, *Summer and French*, 469
Androstene-3β,16α-diol: 5-, *Huffman, Lott, and Tillotson*, 447
Androstene-3β,16β-diol: 5-, *Huffman, Lott, and Tillotson*, 447
Antigen(s): Blood serum hyperglobulinemia and proteins, relation, *Deutsch, Morton, and Kratochvil*, 39
Antigen-antibody reaction: Heat determination, calorimetric, *Steiner and Kitzinger*, 271
Arginine: Biological fluids, determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Ascite(s): Carcinoma, Ehrlich, protein synthesis, glutamine effect, *Rabinovitz, Olson, and Greenberg*, 879
Ascorbic acid: L-, carbon 14-labeled sugars conversion to, strawberries, *Loewus, Jang, and Seegmiller*, 649

B

Bacillus: *See Micrococcus*
Bacteria: Cytochromes, *Vernon*, 1035, 1045
Purple, adenine nucleotides, photophosphorylation, *Frenkel*, 823
See also Clostridium, Escherichia, Pseudomonas
Bean: Soy, hemagglutinin, *Liener and Wada*, 695
Biological fluid(s): Arginine determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Creatine determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Creatinine determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Guanidine determination, *Van Pilsum, Martin, Kito, and Hess*, 225

XUM

Biological fluid(s)—*continued*:
Guanidinoacetic acid, determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Methylguanidine determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Blood cell(s): Red, turnover, methionine- high diet, effect, *Cohen and Berg*, 85
Blood plasma: Phosphatase, rat, *De Luca and Steenbock*, 937
Proteins, metabolism, *Roberts and Kelley*, 555
Blood serum: Hyperglobulinemic, antigenicity, blood serum proteins, relation, *Deutsch, Morton, and Kratochvil*, 39
Macroglobulin, crystalline, *Kratochvil and Deutsch*, 31
Proteins, blood serum hyperglobulinemia, antigenicity, relation, *Deutsch, Morton, and Kratochvil*, 39
Brain: Metabolism, C^{14}-glycine use in study, *Douglas and Mortensen*, 581

C

Carbohydrate(s): Palmitic acid oxidation, effect, *Lossow, Brown, and Chaikoff*, 531
Carbon disulfide: Chymotrypsinogen and, reaction, *Chervenka and Wilcox*, 621
Carboxylic acid: Tri-. *See* Tricarboxylic acid
Carcinoma: Ascites, Ehrlich, protein synthesis, glutamine effect, *Rabinovitz, Olson, and Greenberg*, 879
See also HeLa, Neoplasm, Tumor
Cell(s): Single, analysis, *Lowry, Roberts, and Chang*, 97
Cholesterol: Biosynthesis, liver, acetate-1-C^{14}, relation, *Bucher and McGarrahan*, 1
Carbon 14-labeled acids from, liver mitochondria, relation, *Fredrickson*, 109
-3*d*, coprostanol-*d* from, *Rosenfeld, Hellman, and Gallagher*, 321
Choline: Antimetabolites, microorganisms, *Wells*, 923
Cytidine diphosphate. *See* Cytidine diphosphate choline
Synthesis, 2-amino-2-methylpropanol-1, effect, *Wells*, 931
Chymotrypsinogen: Carbon disulfide and, reaction, *Chervenka and Wilcox*, 621
O-Methylisourea and, reaction, *Chervenka and Wilcox*, 635
Citrate: Fatty acid metabolism, effect, *Brady, Mamoon, and Stadtman*, 795
Liver, *Schneider, Striebich, and Hogeboom*, 969
Citric acid: Cycle, enzymes, HeLa cells, *Barban and Schulze*, 665
Citrovorum factor: *See Leuconostoc*
Clostridium cylindrosporum: Purine fermentation, *Rabinowitz and Pricer*, 537
Coenzyme(s): A, fatty acid metabolism, effect, *Brady, Mamoon, and Stadtman*, 795
Cytidine, phospholipide biosynthesis, relation, *Kennedy and Weiss*, 193
Coprostanol: -*d*, cholesterol-3*d* transformation to, *Rosenfeld, Hellman, and Gallagher*, 321
Deuterium, *Rosenfeld, Hellman, and Gallagher*, 321
Creatine: Biological fluids, determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Creatinine: Biological fluids, determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Cyanide: Mercaptopyruvate-. *See* Mercaptopyruvate-cyanide
Cysteine: Determination, spectrophotometric, *Avi-Dor and Mager*, 249
Cytidine: Coenzymes, phospholipide biosynthesis, relation, *Kennedy and Weiss*, 193
Cytidine diphosphate choline: Synthesis, *Kennedy*, 185
Cytidine diphosphate ethanolamine: Synthesis, *Kennedy*, 185

Cytidine triphosphate: Uridine triphosphate, enzymatic amination to, *Lieberman*, 765
Cytochemistry: *Schneider, Striebich, and Hogeboom*, 969
Cytochrome(s): Bacterial, *Vernon*, 1035, 1045
c, reduction, enzymatic, lipide cofactor and tocopherol, relation, *Nason and Lehman*, 511
Micrococcus denitrificans, *Vernon*, 1035
Pseudomonad, nitrate-reducing, *Vernon*, 1045
Pseudomonas denitrificans, *Vernon*, 1035
Cytochrome *c* reductase: Diphosphopyridine nucleotide, muscle, *Lehman and Nason*, 497
— —, reduced, *Tetrahymena pyriformis*, *Eichel*, 121
Cytosine nucleotide(s): 5′-, phosphorylation, liver, *Herbert and Potter*, 453

D

Dehydrogenase: Glucose. *See* Glucose dehydrogenase
Deoxyglucose: 2-, fructose metabolism, diaphragm, effect, *Nakada and Wick*, 671
2-Galactose metabolism, diaphragm, effect, *Nakada and Wick*, 671
2-, glucose metabolism, diaphragm, effect, *Nakada and Wick*, 671
Deoxyribonucleic acid: Metabolism, liver, regenerating, x-radiation effect, *Jardetzky, Barnum, and Vermund*, 421
Deuterium: Coprostanol, *Rosenfeld, Hellman, and Gallagher*, 321
Dextran: Synthesis, streptococcus, *Hehre*, 739
Diaphragm: Fructose metabolism, 2-deoxyglucose effect, *Nakada and Wick*, 671
Galactose metabolism, 2-deoxyglucose effect, *Nakada and Wick*, 671
Glucose metabolism, 2-deoxyglucose effect, *Nakada and Wick*, 671
Diet: *See* Food
Dimethylpropiothetin: Cleavage, enzymatic, *Polysiphonia lanosa*, *Cantoni and Anderson*, 171
Diphosphopyridine nucleotide: Cytochrome *c* reductase, muscle, *Lehman and Nason*, 497
— — —, reduced, *Tetrahymena pyriformis*, *Eichel*, 121
Diphosphopyridine nucleotide oxidase: Reduced, *Tetrahymena pyriformis*, *Eichel*, 121, 137

E

Ehrlich: Ascites carcinoma, protein synthesis, glutamine effect, *Rabinovitz, Olson, and Greenberg*, 879
Elastase: Pancreas, *Lewis, Williams, and Brink*, 705
Electron transport: Lipides, rôle, *Lehman and Nason*, 497
Nason and Lehman, 511
Embden-Meyerhof: Pathways, *Bloom, Eisenberg, and Stetten*, 301
Enzyme(s): Acetate activation, mechanism, *Berg*, 991
Citric acid cycle, HeLa cells, *Barban and Schulze*, 665
Co-. *See* Coenzyme
Cytidine triphosphate from uridine triphosphate amination, *Lieberman*, 765
Cytochrome *c* reduction, lipide cofactor and tocopherol relation, *Nason and Lehman*, 511
Dimethylpropiothetin cleavage, *Polysiphonia lanosa*, *Cantoni and Anderson*, 171
Glucuronolactone hydrolysis, *Eisenberg and Field*, 293
Hydrogen transfer, *Levy, Loewus, and Vennesland*, 685
Oxalic acid decarboxylation, *Jakoby, Ohmura, and Hayaishi*, 435
Poly-D-lysine, hydrolysis, *Tsuyuki, Tsuyuki, and Stahmann*, 479
Proteolysis, protein peptide cofactors, *Johnson and Herriott*, 855
Respiratory. *See* Respiratory enzyme
Steroid sulfates, synthesis, *Schneider and Lewbart*, 787

Enzyme(s)—*continued:*
See also Adenylosuccinase, Amylase, etc.
Erythrocyte(s): *See* Blood cell
Escherichia coli: Acetate oxidation, tricarboxylic acid cycle relation, *Gilvarg and Davis*, 307
Estradiol-17β: Carbon 14-labeled, 16-ketoestradiol-17β, radioactive, from, *Levitz, Spitzer, and Twombly*, 981
16-Keto-. *See* Ketoestradiol-17β
Estrogen(s): Testosterone, carbon 14-labeled, conversion to, ovary effect, *Wotiz, Davis, Lemon, and Gut*, 487
Ethanolamine: Cytidine diphosphate. *See* Cytidine diphosphate ethanolamine

F

Fatty acid(s): Metabolism, citrate effect, *Brady, Mamoon, and Stadtman*, 795
—, coenzyme effect, *Brady, Mamoon, and Stadtman*, 795
Fibrinogen: Proteolysis, thrombin effect, *Laskowski, Donnelly, Van Tijn, and Scheraga*, 815
Fluorene: Derivatives, liver, hydroxylation and protein binding, *Gutmann, Peters, and Burtle*, 373
—, metabolism, liver, *Gutmann, Peters, and Burtle*, 373
Folic acid: *Leuconostoc citrovorum* factor from, *in vitro, Doctor*, 959
Food: Liver phospholipide labeling, deficiency effect, *Kline, McPherson, Pritchard, and Rossiter*, 219
Formaldehyde: Sarcosine-CD_3 oxidation to, mitochondria, *Mackenzie and Abeles*, 145
Formiminoglycine: *Clostridium cylindrosporum* purine fermentation, relation, *Rabinowitz and Pricer*, 537
Fructose: Metabolism, diaphragm, 2-deoxyglucose effect, *Nakada and Wick*, 671
Fructose-1,6-diphosphatase: Liver, glucogenic stress, relation, *Mokrasch, Davidson, and McGilvery*, 179

G

Galactose: Metabolism, diaphragm, 2-deoxyglucose effect, *Nakada and Wick*, 671
Globulin: γ-, subfractionation, electrophoresis, *Saifer and Corey*, 803
Macro-. *See* Macroglobulin
Globulinemia: Hyper-. *See* Hyperglobulinemia
Glucagon: Glycogenolysis, insulin effect, *Tyberghein, Tomizawa, and Williams*, 945
Glucogenic stress: Liver fructose-1,6-diphosphatase, relation, *Mokrasch, Davidson, and McGilvery*, 179
Glucose: Absorption, intestine, lactic acid production effect, *Wilson*, 751
Catabolism pathways, neoplasms, isotope tracer use, *Wenner and Weinhouse*, 399
2-Deoxy-. *See* Deoxyglucose
Metabolism, diaphragm, 2-deoxyglucose effect, *Nakada and Wick*, 671
Glucose dehydrogenase: Hydrogen transfer, rôle, *Levy, Loewus, and Vennesland*, 685
Glucose-6-phosphatase: Tumors, corticotropin-secreting, *Shull, Cahill, Gadsden, and Mayer*, 415
Glucose-1-phosphate transphosphorylase: Muscle, *Sidbury, Rosenberg, and Najjar*, 89
Glucuronidase: β-, alcohols, effect, *Nayyar and Glick*, 73
—, kidney, gonadotropin effect, *Fishman, Benjamin, and Green*, 351
Glucuronolactone: Hydrolysis, enzymatic, *Eisenberg and Field*, 293
Glutamine: Protein synthesis, Ehrlich ascites carcinoma, effect, *Rabinovitz, Olson, and Greenberg*, 879
Glutathione: Metabolism, liver, C^{14}-glycine use in study, *Douglas and Mortensen*, 581
Glycinamide ribotide: 5-Phosphoribosylamine relation, *Goldthwait*, 1051
Glycine: Carbon 14-labeled, brain metabolism, use in study, *Douglas and Mortensen*, 581

Glycine: —*continued:*
Carbon 14-labeled liver glutathione metabolism, use in study, *Douglas and Mortensen*, 581
Formimino-. *See* Formiminoglycine
Glycogen: Metabolism, molecular weight relation, *Stetten, Katzen, and Stetten*, 587
Glycogenolysis: Glucagon, insulin effect, *Tybergheim, Tomizawa, and Williams*, 945
Glycolic acid: Excretion, algae, photosynthesis effect, *Tolbert and Zill*, 895
Gonadotropin: Kidney β-glucuronidase effect, *Fishman, Benjamin, and Green*, 351
Guanidine: Biological fluids, determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Methyl-. *See* Methylguanidine
Guanidinoacetic acid: Biological fluids, determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Guanine nucleotide(s): Phosphorylation, liver, *Herbert and Potter*, 453

H

HeLa: Cells, citric acid cycle, enzymes, *Barban and Schulze*, 665
Hemagglutinin: Soy bean, *Liener and Wada*, 695
Histidine: α-C^{14}-, metabolism, *Wolf, Wu, and Heck*, 159
—, products, urine, *Wolf, Wu, and Heck*, 159
Hormone(s): Ovary, non-steroid, *Frieden, Noall, and Alonso-deFlorida*, 611
Thyrotropic. *See* Thyrotropic hormone
Hydrogen: Transfer, enzymatic, *Levy, Loewus, and Vennesland*, 685
—, glucose dehydrogenase rôle, *Levy, Loewus, and Vennesland*, 685
Hyperglobulinemia: Blood serum, antigenicity, blood serum proteins, relation, *Deutsch, Morton, and Kratochvil*, 39

I

Insulin: Glucagon, glycogenolysis, effect, *Tybergheim, Tomizawa, and Williams*, 945
Intestine: Glucose absorption, lactic acid production effect, *Wilson*, 751

K

Ketoestradiol-17β: 16-, carbon 14-labeled, synthesis, *Levitz and Spitzer*, 979
—, radioactive, estradiol-17β-16-C^{14} conversion to, *Levitz, Spitzer, and Twombly*, 981
Kidney: β-Glucuronidase, gonadotropin effect, *Fishman, Benjamin, and Green*, 351
Metabolism, phlorizin effect, *Lotspeich and Keller*, 843

L

Lactic acid: Glucose absorption, intestine, effect, *Wilson*, 751
Lactone(s): Glucurono-. *See* Glucuronolactone
Lecithin(s): Oleic acid-1-C^{14} incorporation into, *Hanahan and Blomstrand*, 677
Palmitic acid-1-C^{14} incorporation into, *Hanahan and Blomstrand*, 677
Leuconostoc citrovorum: Factor, folic acid conversion to, *in vitro, Doctor*, 959
Lipemia: Clearing activity, lipolysis relation, *Engelberg*, 601
Lipide(s): Electron transport, rôle, *Lehman and Nason*, 497
Nason and Lehman, 511
Phospho-. *See* Phospholipide
Lipide cofactor: Cytochrome *c* reduction, enzymatic, tocopherol relation, *Nason and Lehman*, 511
Lipolysis: Lipemia clearing activity, relation, *Engelberg*, 601
Liver: Acetoacetate formation, pentadecanoin, carbon 14-labeled, relation, *Chapman, Chaikoff, and Dauben*, 363

Liver—*continued:*
Cholesterol biosynthesis, acetate-1-C^{14}, relation, *Bucher and McGarrahan*, 1
Citrate, *Schneider, Striebich, and Hogeboom*, 969
5-Cytosine nucleotides, phosphorylation, *Herbert and Potter*, 453
Fluorene derivatives, hydroxylation and protein binding, *Gutmann, Peters, and Burtle*, 373
— —, metabolism, *Gutmann, Peters, and Burtle*, 373
Fructose-1,6-diphosphatase, glucogenic stress, relation, *Mokrasch, Davidson, and McGilvery*, 179
Glutathione metabolism, C^{14}-glycine use in study, *Douglas and Mortensen*, 581
Guanine nucleotides, phosphorylation, *Herbert and Potter*, 453
Mitochondria, cholesterol-4-C^{14} conversion to acids, relation, *Fredrickson*, 109
—, swelling, thyroxine effect, *Tapley*, 325
Phospholipide labeling, food deficiency effect, *Kline, McPherson, Pritchard, and Rossiter*, 219
Regenerating, deoxyribonucleic acid metabolism, x-radiation effect, *Jardetzky, Barnum, and Vermund*, 421
—, phospholipide metabolism, x-radiation effect, *Jardetzky, Barnum, and Vermund*, 421
Lymphoid tissue: Nucleic acids, phosphorus, isotopic, uptake, *Clark and Stoerk*, 285
Lysine: Poly-D-, synthesis and hydrolysis, enzymatic, *Tsuyuki, Tsuyuki, and Stahmann*, 479
Vasopressin, pituitary, *Ward and du Vigneaud*, 951

M

Macroglobulin: Crystalline, blood serum, *Kratochvil and Deutsch*, 31
Mercaptopyruvate-cyanide: β-, transsulfuration system, *Fiedler and Wood*, 387
Methionine: High diet, blood cells, red, turnover, effect, *Cohen and Berg*, 85
L-, adenosine triphosphate and, interaction, *Berg*, 1025
Methylguanidine: Biological fluids, determination, *Van Pilsum, Martin, Kito, and Hess*, 225
Methylisourea: *O*-, chymotrypsinogen and, reaction, *Chervenka and Wilcox*, 635
Micrococcus denitrificans: Cytochromes, *Vernon*, 1035
Microorganism(s): Choline antimetabolites, *Wells*, 923
See also Bacteria, *Micrococcus*
Mitochondrion: Formaldehyde from oxidation of sarcosine-CD_3, *Mackenzie and Abelen*, 145
Liver, cholesterol-4-C^{14} conversion to acids, relation, *Fredrickson*, 109
—, swelling, thyroxine effect, *Tapley*, 325
Muscle: Diphosphopyridine nucleotide-cytochrome *c* reductase, *Lehman and Nason*, 497
Glucose-1-phosphate transphosphorylase, *Sidbury, Rosenberg, and Najjar*, 89

N

Neoplasm(s): Glucose catabolism pathways, isotope tracer use, *Wenner and Weinhouse*, 399
Metabolism, *Wenner and Weinhouse*, 399
See also Carcinoma, HeLa, Tumor
Nuclease: Ribo-. *See* Ribonuclease
Nucleic acid(s): Deoxyribo-. *See* Deoxyribonucleic acid
Lymphoid tissue, phosphorus, isotopic, uptake, *Clark and Stoerk*, 285
Phosphorus 32-labeled incorporation into, vitamin E effect, *Dinning, Sime, and Day*, 215
Nucleotide(s): Adenine. *See* Adenine nucleotide
Cytosine. *See* Cytosine nucleotide
Diphosphopyridine. *See* Diphosphopyridine nucleotide

Nucleotide(s)—*continued:*
Guanine. *See* Guanine nucleotide
Hydrolysis, wheat leaf phosphatases, effect, *Roberts*, 259
Metabolism, *Herbert and Potter*, 453

O

Oleic acid: Carbon 14-labeled, incorporation into lecithins, *Hanahan and Blomstrand*, 677
Oligosaccharide(s): Branched, β-amylase effect, *Summer and French*, 469
Ovary: Hormone, non-steroid, *Frieden, Noall, and Alonso-deFlorida*, 611
Testosterone, carbon 14-labeled, conversion to estrogens, effect, *Wotiz, Davis, Lemon, and Gut*, 487
Oxalic acid: Decarboxylation, enzymatic, *Jakoby, Ohmura, and Hayaishi*, 435
Oxidase: Diphosphopyridine nucleotide. *See* Diphosphopyridine nucleotide oxidase

P

Palmitic acid: Carbon 14-labeled, incorporation into lecithins, *Hanahan and Blomstrand*, 677
Oxidation, carbohydrate effect, *Lossow, Brown, and Chaikoff*, 531
Pancreas: Elastase, *Lewis, Williams, and Brink*, 705
Protein metabolism, *Farber and Sidransky*, 237
Pentadecanoin: Carbon 14-labeled, liver acetoacetate formation, relation, *Chapman, Chaikoff, and Dauben*, 363
Pepsin: Amino acids, *Williamson and Passmann*, 151
Peptide(s): Cofactors, protein, proteolysis, enzymatic, *Johnson and Herriott*, 855
Phlorizin: Kidney metabolism, effect, *Lotspeich and Keller*, 843
Phosphatase(s): Blood plasma, rat, *De Luca and Steenbock*, 937
Fructose-1,6-di-. *See* Fructose-1,6-diphosphatase

Phosphatase(s)—*continued:*
Glucose-6-. *See* Glucose-6-phosphatase
Wheat leaf, *Roberts*, 259
— —, nucleotides, hydrolysis, effect, *Roberts*, 259
Phosphate: Adenosine tri-. *See* Adenosine triphosphate
Cytidine tri-. *See* Cytidine triphosphate
Uridine tri-. *See* Uridine triphosphate
Phospholipide(s): Biosynthesis, cytidine coenzymes, relation, *Kennedy and Weiss*, 193
Labeling, liver, food deficiency effect, *Kline, McPherson, Pritchard, and Rossiter*, 219
Metabolism, liver, regenerating, x-radiation effect, *Jardetzky, Barnum, and Vermund*, 421
Phosphoribosylamine: 5-, glycinamide ribotide, relation, *Goldthwait*, 1051
Phosphorus: Isotopic, incorporation into nucleic acids, vitamin E effect, *Dinning, Sime, and Day*, 215
—, uptake, lymphoid tissue nucleic acids, *Clark and Stoerk*, 285
Phosphorylase: Glucose-1-phosphate trans-. *See* Glucose-1-phosphate transphosphorylase
Tumors, corticotropin-secreting, *Shull, Cahill, Gadsden, and Mayer*, 415
Phosphorylation: Oxidative, thyroxine effect, *Tapley and Cooper*, 341
Photosynthesis: Glycolic acid excretion, algae, effect, *Tolbert and Zill*, 895
Pituitary: Homogenates, amino acid-incorporating system, *Ziegler and Melchior*, 731
—, fractionation, centrifugal, *Ziegler and Melchior*, 721, 731
Vasopressin, lysine, *Ward and du Vigneaud*, 951
Polysiphonia lanosa: Dimethylpropiothetin cleavage, enzymatic, *Cantoni and Anderson*, 171
Propanol-1: 2-Amino-2-methyl-. *See* Amino-2-methylpropanol-1

Propiothetin: Dimethyl-. *See* Dimethylpropiothetin
Protein(s): Blood plasma, metabolism, *Roberts and Kelley*, 555
— serum, blood serum hyperglobulinemic antigenicity, relation, *Deutsch, Morton, and Kratochvil*, 39
Fluorene derivatives, metabolism, liver, effect, *Gutmann, Peters, and Burtle*, 373
Metabolism, pancreas, *Farber and Sidransky*, 237
Mobility-ionic strength, electrophoretic, *Saifer and Corey*, 803
Peptide cofactors, proteolysis, enzymatic, *Johnson and Herriott*, 855
Synthesis, Ehrlich ascites carcinoma, glutamine effect, *Rabinowitz, Olson, and Greenberg*, 879
Proteolysis: Enzymatic, protein peptide cofactors, *Johnson and Herriott*, 855
Fibrinogen, thrombin effect, *Laskowski, Donnelly, Van Tijn, and Scheraga*, 815
Protozoa: *See also Tetrahymena*
Pseudomonad: Nitrate-reducing, cytochromes, *Vernon*, 1035
Pseudomonas denitrificans: Cytochromes, *Vernon*, 1035
Pteroylglutamic acid: *See* Folic acid
Purine: Fermentation, *Clostridium cylindrosporum*, formiminoglycine relation, *Rabinowitz and Pricer*, 537

R

Radiation: x-, deoxyribonucleic acid and phospholipide metabolism, liver, regenerating, effect, *Jardetzky, Barnum, and Vermund*, 421
Reductase: Cytochrome *c*. *See* Cytochrome *c* reductase
Relaxin: -Containing extracts, fractionation, *Frieden, Noall, and Alonso-deFlorida*, 611
Respiratory enzyme(s): *Tetrahymena pyriformis, Eichel*, 121, 137
Retinene: Neo-b isomer, *Brown and Wald*, 865
Ribonuclease: Spleen, purification and properties, *Kaplan and Heppel*, 907
Ribotide: Glycinamide. *See* Glycinamide ribotide

S

Saccharide(s): Oligo-. *See* Oligosaccharide
Sarcosine: -CD_3, oxidation to, mitochondria, *Mackenzie and Abeles*, 145
Soy bean: *See* Bean
Spleen: Ribonuclease, purification and properties, *Kaplan and Heppel*, 907
Steroid(s): Metabolism, *Wotiz, Davis, Lemon, and Gut*, 487
16-Substituted, *Huffman, Lott, and Tillotson*, 447
Steroidogenesis: Adrenal use in studies, *Rosenfeld and Bascom*, 565
Amphenone B effect, *Rosenfeld and Bascom*, 565
Steroid sulfate(s): Synthesis, enzymatic, *Schneider and Lewbart*, 787
Strawberry: Carbon 14-labeled sugars conversion to L-ascorbic acid, *Loewus, Jang, and Seegmiller*, 649
Streptococcus: Dextran synthesis, *Hehre*, 739
Succinase: Adenylo-. *See* Adenylosuccinase
Succinic acid: Adenylo-. *See* Adenylosuccinic acid
Sugar(s): Carbon 14-labeled, L-ascorbic acid from, strawberries, *Loewus, Jang, and Seegmiller*, 649

T

Testosterone: Carbon 14-labeled, estrogens from, ovary effect, *Wotiz, Davis, Lemon, and Gut*, 487
Tetrahymena pyriformis: Diphosphopyridine nucleotide cytochrome *c* reductase, reduced, *Eichel*, 121
— — oxidase, reduced, *Eichel*, 121, 137
Respiratory enzymes, *Eichel*, 121, 137
Thyrotropic hormone: Preparation, *Pierce and Nyc*, 777

Thyroxine: Liver mitochondria swelling, effect, *Tapley*, 325
Phosphorylation, oxidative, effect, *Tapley and Cooper*, 341
Tissue culture: Cells, metabolism, *Barban and Schulze*, 665
Tocopherol: Cytochrome *c* reduction, enzymatic, lipide cofactor relation, *Nason and Lehman*, 511
Transaminase: Tyrosine-α-ketoglutaric acid. *See* Tyrosine-α-ketoglutaric acid transaminase
Transsulfuration: System, β-mercaptopyruvate-cyanide, *Fiedler and Wood*, 387
Tricarboxylic acid: Cycle, acetate oxidation, *Escherichia coli*, relation, *Gilvarg and Davis*, 307
Trypsinogen: Chymo-. *See* Chymotrypsinogen
Tryptophan: Acetyl-D-, metabolites, urine, *Price and Brown*, 835
Acetyl-L-, metabolites, urine, *Price and Brown*, 835
D-, metabolites, urine, *Price and Brown*, 835
DL-, carbon 14-labeled, metabolism, *Henderson and Hankes*, 1069
—, metabolites, urine, *Price and Brown*, 835
Tumor(s): Corticotropin-secreting, glucose-6-phosphatase, *Shull, Cahill, Gadsden, and Mayer*, 415
—, phosphorylase, *Shull, Cahill, Gadsden, and Mayer*, 415
See also Carcinoma, HeLa, Neoplasm
Tyrosine-α-ketoglutaric acid transaminase: *Canellakis and Cohen*, 53, 63

U

Urea: *O*-Methyliso-. *See* Methylisourea
Uridine triphosphate: Cytidine triphosphate from, enzymatic amination relation, *Lieberman*, 765
Urine: Acetyl-D-tryptophan metabolism, *Price and Brown*, 835
Acetyl-L-tryptophan metabolism, *Price and Brown*, 835
α-C^{14}-Histidine products, *Wolf, Wu, and Heck*, 159
D-Tryptophan metabolism, *Price and Brown*, 835
DL-Tryptophan metabolism, *Price and Brown*, 835

V

Vasopressin: Lysine, pituitary, *Ward and du Vigneaud*, 951
Vitamin: A, neo-b isomer, *Brown and Wald*, 865
D, rat, *De Luca and Steenbock*, 937
E, phosphorus, isotopic, incorporation into nucleic acids, effect, *Dinning, Sime, and Day*, 215

W

Wheat: Leaf phosphatases, *Roberts*, 259
— —, nucleotides, hydrolysis, effect, *Roberts*, 259